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# Massachusetts Division of Fisheries and Wildlife

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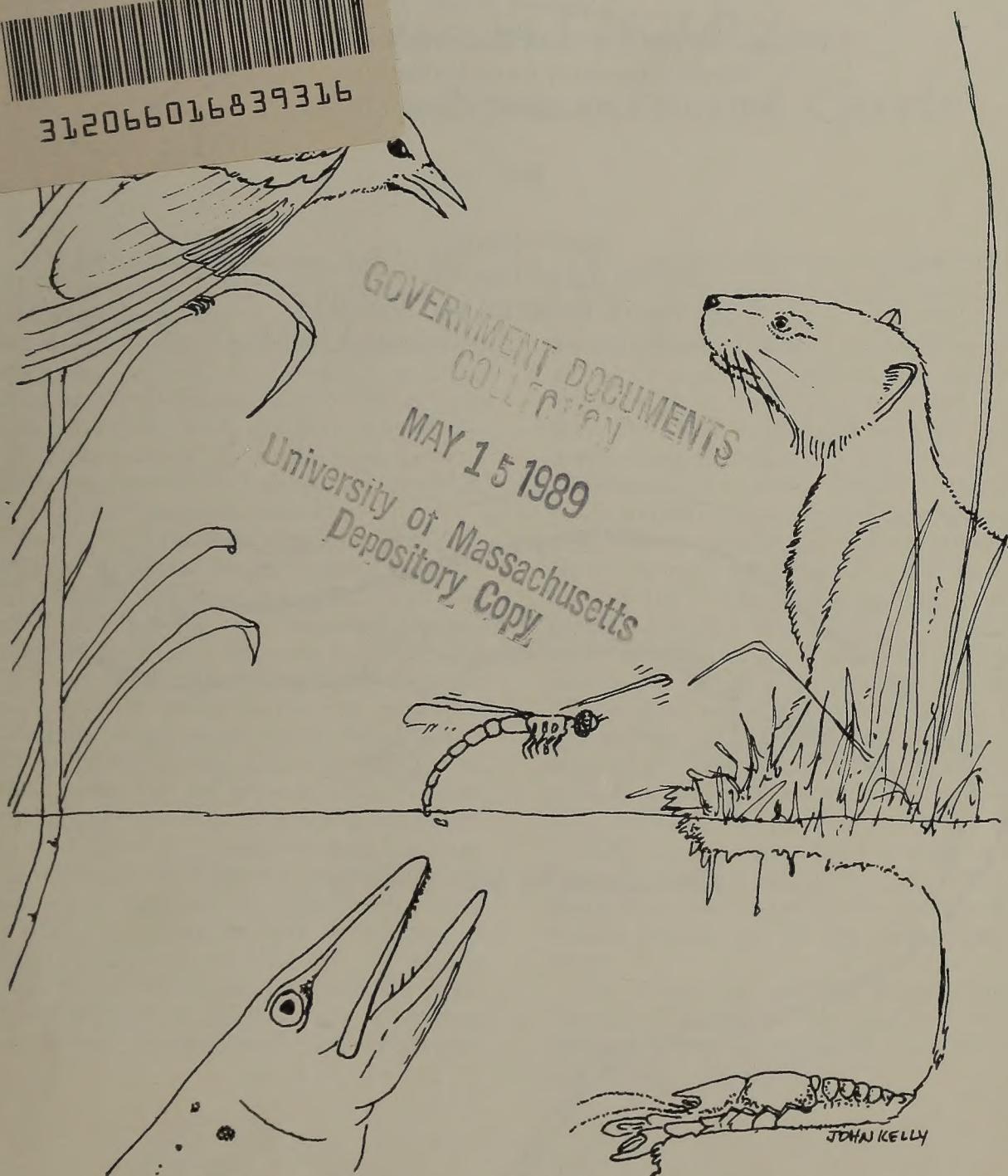


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## Mandate, Structure and Goals

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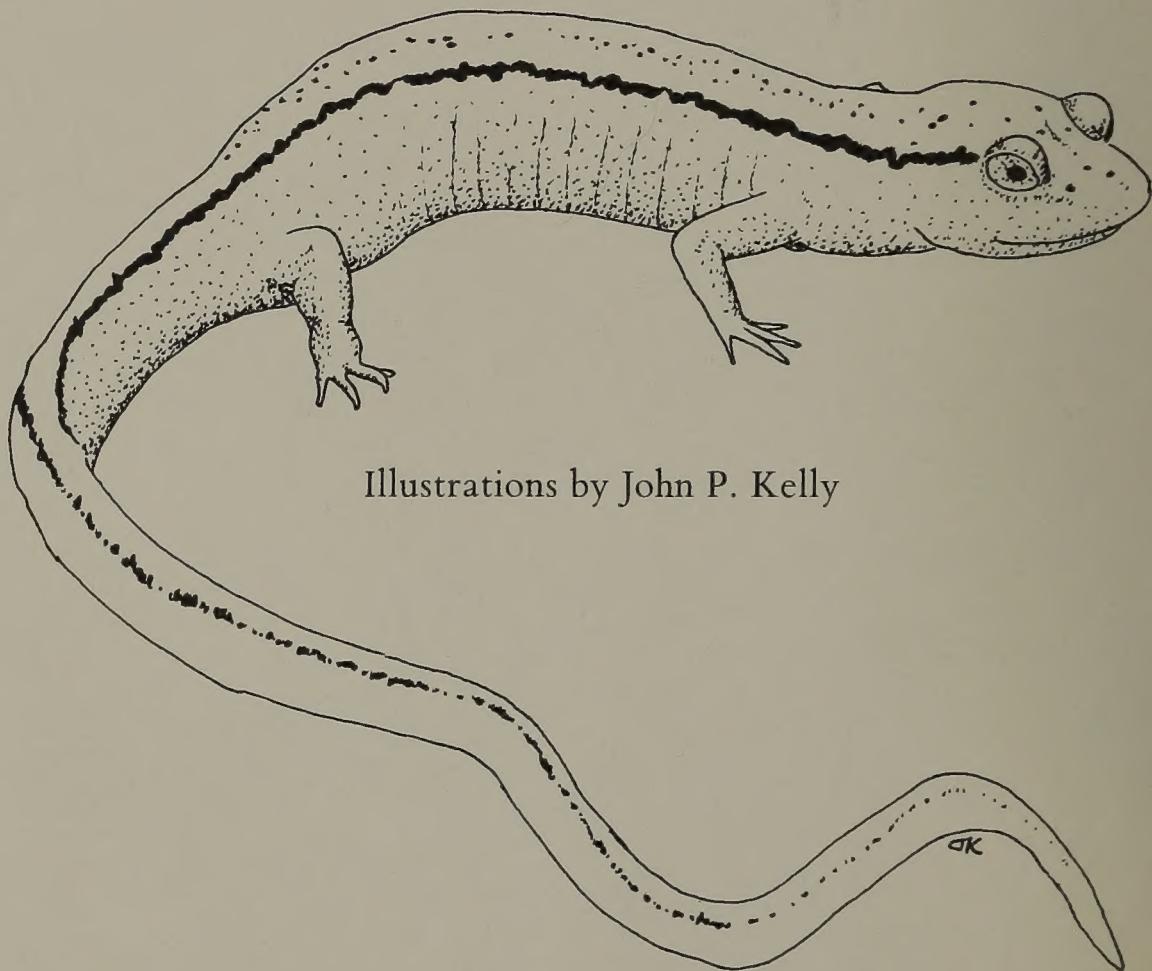
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# *The Massachusetts Division of Fisheries and Wildlife: Its Mandate, Structure and Goals*

The Division of Fisheries and Wildlife (DFW) is charged with stewardship of all wild amphibians, reptiles, birds, terrestrial mammals, freshwater and anadromous fishes, and native, wild, non-commercial plants in the Commonwealth. This responsibility emanates from the state constitution and those sections of the General Laws of Massachusetts which establish and articulate the Division's statutory mandate.

Article 97 of the Amendments to the Constitution of Massachusetts guarantees that: "The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose." As a result of this constitutional mandate, The Division of Fisheries and Wildlife is charged by law with the duty to carry out its statutory responsibilities, articulated in M.G.L. Chapters 21 and 131, in such a manner that the people's right to the natural and esthetic qualities of the environment is protected for their benefit and enjoyment.

This mandates that the Division conserve, restore, and manage all species subject to its jurisdiction and conserve all habitats composing the ecosystems in which these species are or once were found, for the interest of all residents of the Commonwealth. Therefore, the DFW is charged with the task of maintaining the diversity and abundance of the Commonwealth's habitats, wildlife, fishes and wild plants, including preservation and recovery of rare and endangered species. As the steward and conservator of the Commonwealth's natural heritage, the Division of Fisheries and Wildlife upholds the precepts articulated by the National Wildlife Federation in its 1986 Annual Report: a) The welfare of wildlife is inseparable from the welfare of all living things, including humans; b) Wildlife is an indicator of environmental quality and when properly managed is a source of inspiration and recreation. Wildlife cannot exist where its habitats have been degraded or destroyed. Awareness, understanding and action by citizens are necessary to protect the life-supporting environment.

The protection and wise management of the natural heritage of this state are thus the fundamental components of the Division's stewardship philosophy.

# *Evolution of the Stewardship Philosophy*

This nation's understanding of and appreciation for the importance of our natural environment has undergone a profound evolution over the last 100 years. As the United States Fish and Wildlife Service described in its recent report, entitled *50 Years Restoring America's Wildlife 1937-1987*, "The early settlers encountered a spectacular abundance of wildlife. But in their zeal to conquer an untamed continent, they (unknowingly) squandered that legacy for centuries, wiping out some species and reducing others to a pitiful remnant of their original numbers... America the Beautiful is still the home of wondrous numbers and varieties of wild creatures. Yet, only a few decades ago, wildlife's survival was very much in doubt. And even today, despite remarkable improvement, the future is uncertain for many of our most inspiring birds and mammals."

This drastic degradation of the natural environment and the concern that it generated prompted a profound change in the way in which our society perceives its relationship with that environment. For millenia, that relationship had been a simple matter of exploitation. Then, in the last half of the nineteenth century, a new concept – *stewardship* – began to emerge. The people of this country slowly began to understand that they are part of the natural world, and that they must thus manage it wisely if it is to survive. These seeds of responsibility for natural resources grew into an active philosophy. As an example, the first National Park – Yellowstone – was created in 1865 to permanently protect a unique portion of the nation's environment, and, in 1871, the Blooming Grove Park Association purchased and set aside 12,000 acres of woodland in Pike County, Pennsylvania, to serve as "a grand park or enclosure...where game might be bred and protected." Through the work of President Theodore Roosevelt – and at the urging of concerned sportsmen and non-sportsmen alike – the first National Wildlife Refuge, Pelican Island in Florida, was set aside in 1903. It was during this period that National Forests were also established in many areas of the nation.

During the 1930's, organized sportsmen and the firearms and ammunition industries joined forces with state wildlife agencies to deal with the wildlife crisis by developing an ingenious, long-range plan. At their urging, Congress extended the life of a 10% tax on ammunition and firearms used for sport hunting and earmarked the proceeds to be distributed to the states for wildlife restoration programs. Emphasis was placed not on restocking, which had met with minimal success, but on scientific research and habitat management to establish healthy populations. The legislation was called the Federal Aid in Wildlife Restoration Act, better known as the Pittman-Robertson Act. As a direct result of efforts under this far-sighted act, numerous, once-decimated species have expanded their populations and extended their ranges far beyond what they were in the 1930's.



This nation's concept of stewardship is still developing. Old understandings and perceptions die hard; new ideas and philosophies are resisted and must in themselves mature. Differences in values and priorities have produced tensions. For example, limited funds have created struggles over which species and lands to protect and manage first.

As has been true of the nation, Massachusetts has experienced this struggle. At times the Commonwealth has been at the forefront of the evolving concept of stewardship, while on other occasions change has been resisted, such as the effort by some citizens to remove the nongame program from the Division of Fisheries and Wildlife. The Division of Fisheries and Wildlife is committed to the stewardship philosophy and intends to remain at the cutting edge of America's effort to protect the environment.

The Division's basic mandate is to conserve and manage the wild animals, including fishes, and wild, non-commercial plants of Massachusetts for the public benefit.

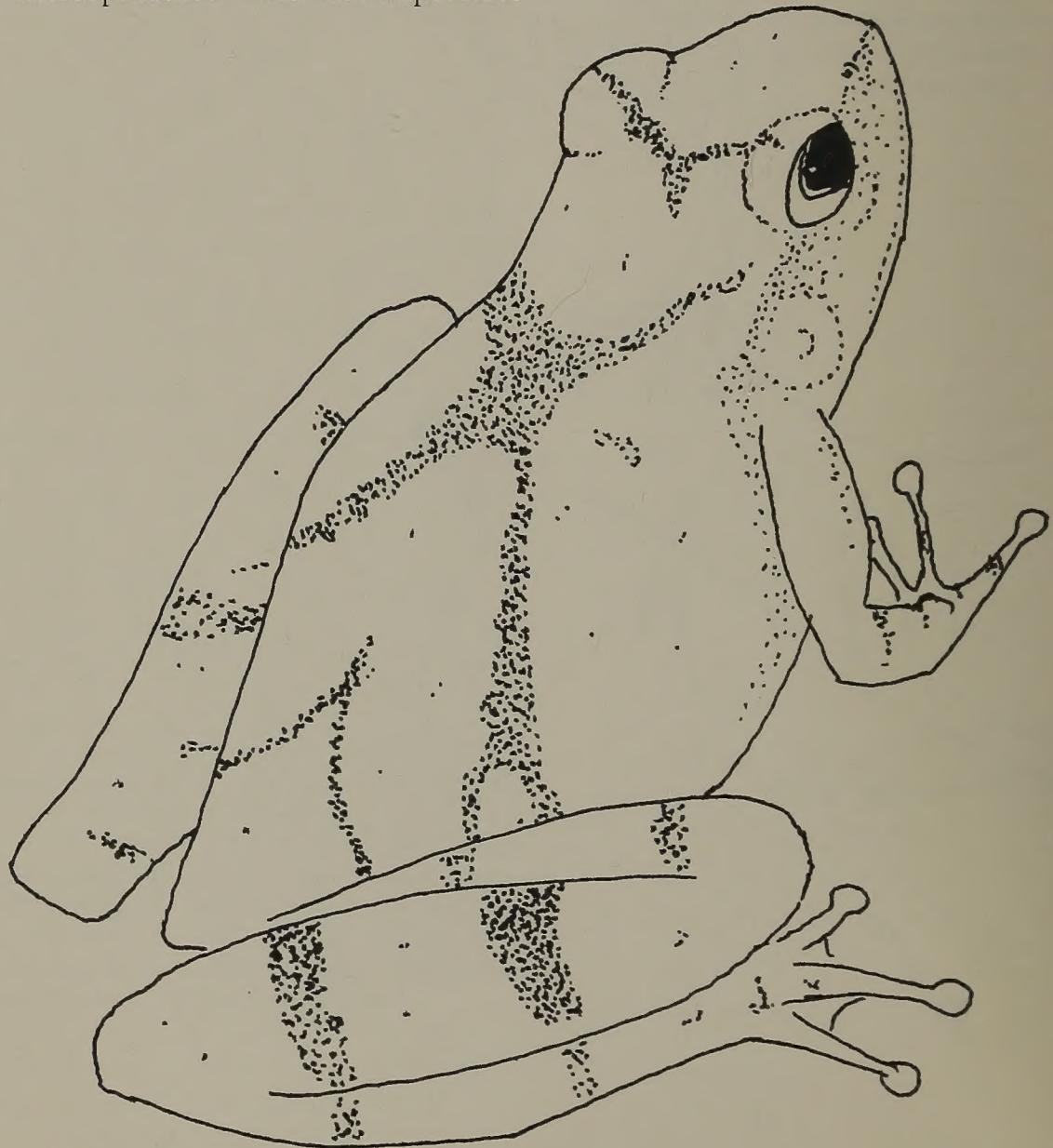
Historically, fish and wildlife management focused almost exclusively on meeting the needs of fishing, hunting and trapping. This focus grew from three basic factors which were the foundation for the development of the scientific management of fishes and wildlife. First, sportsmen have traditionally been among the leaders in efforts to restore and properly manage natural resources. Second, sportsmen have been willing to financially support their belief in the need for management of fishes and wildlife. Sportsmen, today, continue to provide the primary fin-



ancial support base of the Division. Third, fish and wildlife management was in its infancy when sportsmen began their efforts to restore this nation's fish and wildlife; scientists, at that time, knew very little about the biology, and thus management needs, of most species. Since research and experimentation had to begin somewhere, it was natural that the vigorous commitment and financial support given by sportsmen to such scientific studies prompted the early managers to focus their attention on sport fish and wildlife.

With the development of a greater understanding of the natural world, the Division's stewardship mission evolved. The ever-deepening base of scientific knowledge regarding the interdependence – and thus importance

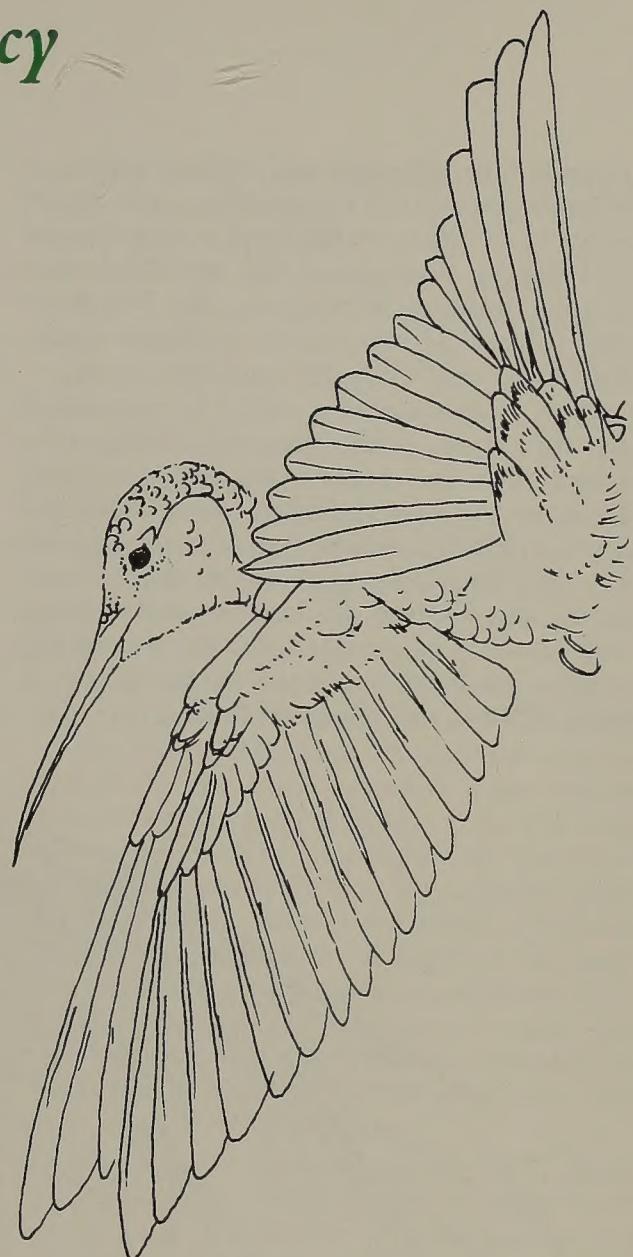
– of all life forms, coupled with the wisdom and insight of conservation leaders such as Aldo Leopold and Durward Allen regarding society's relationship to the natural world, resulted in the realization that a comprehensive vision of fish and wildlife management was necessary. With this understanding, the mission and mandate of the Division has evolved from research and management of sport fish and wildlife to stewardship of all wild animal and wild plant species of the Commonwealth and the habitats in which they are found. The operation of the Division of Fisheries and Wildlife now reflects this latter philosophy.



# Structure of the Agency

The Division currently has more than 140 staff and a multimillion dollar annual operating budget. It is overseen by a seven-member Fisheries and Wildlife Board appointed by the Governor. Under Chapter 21, the Board supervises and controls the agency, having authority to make regulations, set policy, and oversee personnel appointments. The Board is supported on non-game wildlife matters by a seven member Nongame Advisory Committee, which is supplemented by eight associate members. The Director, who reports directly to the Board, supervises the Division through the Deputy Director of Administration and the Deputy Director of Field Operations, who are responsible for supervision and coordination of activities within the Division. The Division currently consists of three research sections, two production sections (fish hatcheries and game farms) and several support sections (Administration, Planning, Reality, Forestry Habitat Planning and Information & Education) housed at the Boston Headquarters, the Westboro Field Headquarters, five field offices and a variety of other field facilities.

The "Fisheries", "Wildlife" and "Natural Heritage and Endangered Species" Sections of the Division are responsible for designing and conducting research projects to guide management activities. They also cooperate with other state, federal and local conservation agencies on matters of mutual concern, such as intrabasin diversions of water and anadromous fish restoration. In addition to research, these sections carry out a wide variety of other activities. Among their many projects, the Wildlife Section is reestablishing wild turkeys into appropriate habitats statewide and the Fisheries Section is active in the restoration of the Atlantic salmon and American shad. Data gathered by Fisheries Section personnel in cooperation with the Massachusetts Water Resources Research Center as part of the statewide Acid Rain Monitoring Program (ARM) has emphasized the need for regulatory action at the federal level, as well as the continued need for refinement of the Commonwealth's data base on acid rain's effects on various ecosystems. A 1987 Division report concerning the Quabbin Reservoir illustrates that increasingly acid precipitation is causing the



system to lose much of its natural buffering capacity and that the entire watershed is being affected. The Natural Heritage and Endangered Species Section compiles inventory data on animal and plant species and natural communities throughout the state, reviews potential impacts of proposed development on rare species and their habitats under MEPA and the Wetlands Protection Act, and identifies unique habitats for acquisition by the Division.

Field operations, which includes aspects of both research and management, is overseen by the Deputy Director of Field Operations. It includes five Wildlife Districts which roughly represent natural divisions of the state. Within each district is a field office supervised by a District Fisheries and Game Supervisor. These offices are responsible for 1) management practices within their areas, including aid to staff biologists

in both data collection and application phases of management, 2) maintaining over 55,000 acres of Division owned land statewide, and 3) stocking propagated fish and birds into suitable habitat. In addition, the Northeast and Central Districts each maintain a sub-station on a Wildlife Management Area.

The Administration Section, supervised by the Head Administrative Assistant, is responsible for record keeping involving finances and permits. More specifically, the section handles budgeting, accounting and records, financial reporting, personnel functions, distribution of licenses and stamps, and issuance of permits. A cost accounting system has been developed to track current expenditures and allocated funds.



The Federal Aid Program Administrator is closely linked to both the Operations and Administration Sections but has the specialized role of financial liaison with the U.S.

Fish and Wildlife Service. The Administrator is responsible for proper documentation and recovery of more than 2.5 million dollars annually in Federal Aid apportionments. This person oversees all Federal Aid grant projects to ensure compliance with Federal Aid reimbursement requirements, and reports on program progress. The Administrator's activity reports serve as a communication device providing operational information to all branches of the Division and to cooperating agencies.

The Planning Section was instituted primarily for the purpose of implementing comprehensive planning. Responsibilities include the development of strategic and operational plans through data analysis and organization, training personnel in planning techniques, advising on preparation of documents, organizing planning documents and providing information needed by agency decision makers. A Comprehensive Plan was prepared between 1978 and 1982. The Planner periodically reviews this plan to insure that it remains responsive to current public needs, and also reviews programs to determine if they are in accord with the goals of the plan.

The Realty staff has the responsibility of acquiring lands, wetlands and open water areas to accommodate Division goals, including the establishment of wildlife corridors and the acquisition of lands containing rare species and unique habitats. The staff examines the physical attributes of all candidate properties, locates property boundaries, evaluates habitat value, examines title records and plans, and negotiates for the eventual purchase. Contracting for the assistance of attorneys, appraisers and surveyors is also conducted through the Realty Office for the preparation of title exams and appraisals. Arranging for payment, preparing necessary documents, drawing the deeds, and the delivery and recording of the deeds of conveyance are all activities conducted

by the Realty staff. During 1987 the Division acquired approximately 3500 acres for open space and wildlife preservation, adding to the 51,000 acres already managed. Until rather recently, the Division had only two staff members involved with land acquisition negotiations. During 1987 seven full-time Right-of-Way Agents were added to the staff, while five district personnel from the Division of Fisheries and Wildlife received special training to negotiate with land owners for the purchase of lands vital to wildlife habitat protection. All lands purchased by the Division are approved by the Fisheries and Wildlife Board.

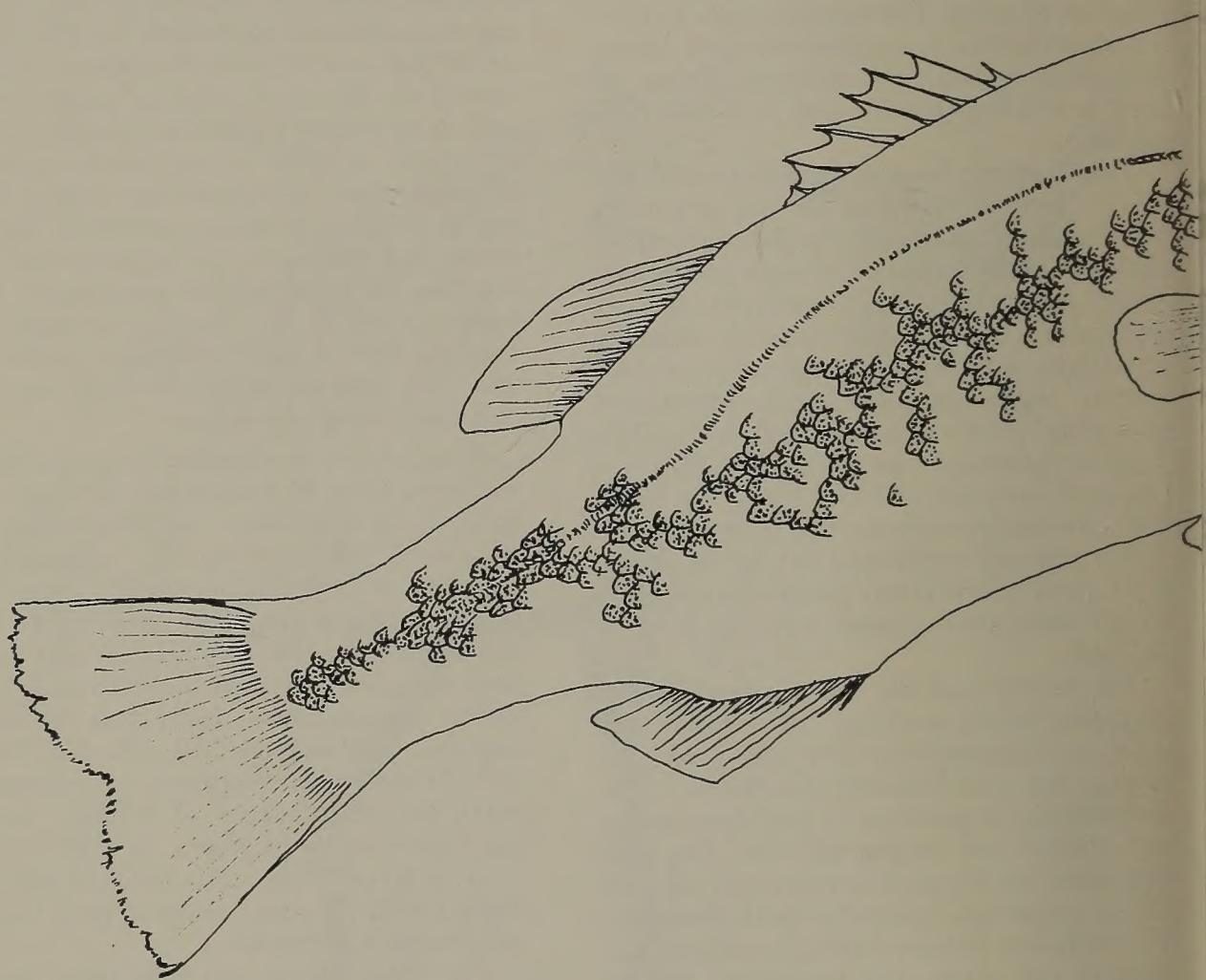
With additional lands have come growing management responsibilities. The efforts of the Forestry Habitat Planner are concentrated on the most essential lands and on educating private landowners about the value of proper wildlife management practices. Through proper timber cutting practices, clearing of areas to stimulate growth of wildlife foods, and continued oversight of the numbers and health of wildlife populations, Division personnel are striving to make sure that wildlife and the lands they inhabit are and will remain in better condition than they have been in centuries.

A legislative mandate in Section 4, Chapter 131, of the Massachusetts General Laws specifically establishes an Information and Education (I&E) Section by requiring the Division to "conduct statewide information and promotion programs in Wildlife conservation." To this end, the Division maintains an active program of public communication and education addressing the needs, opportunities and benefits afforded by our wildlife resources. Programs are designed to make the public aware of wildlife, including fishes and wild plants, as well as Division programs. They are designed and conducted with the cooperation of both District and research personnel.

The Information and Education Section maintains a close working relationship with the print and electronic media to keep the public informed of the Division's programs and related issues. It issues publications which address matters of particular interest and publishes *Massachusetts Wildlife*, a quarterly magazine. It also works closely with such educational programs as the Massachusetts

Junior Conservation Camp, local conservation camps and the Hunter Safety Program. Project WILD and Aquatic WILD are environmental programs offered to elementary and secondary school teachers through workshops conducted by teachers who have taken a Division of Fisheries and Wildlife training course. Activities are designed to increase public awareness, to create an understanding, and to foster a sense of personal responsibility with regard to wildlife and environmental issues. Younger children are taught such basics as where and how various wild-

life species live, while high school students explore conflicts of land use and wildlife protection, and propose solutions to real problems. The Aquatic Resources Education Program is designed to teach children an activity which they can enjoy for a lifetime, while providing a broad ecological perspective on the requirements of healthy fish and wildlife habitats. It also teaches these future resource stewards responsibility for wildlife resources, basic safety and outdoor ethics.



# *Looking Ahead*

During the last 10 to 15 years, Massachusetts has experienced a profound change. The economic boom of the 1980's has caused degradation and loss of much of this state's natural environment. Woodlots, wetlands and meadows have steadily been converted into office parks and housing developments as commercial and residential development has enveloped the Commonwealth, particularly east of Worcester. The building boom is now spreading west, all the way to the New York border. This essentially unbridled, statewide economic growth, with its attendant loss of open space, increased air and

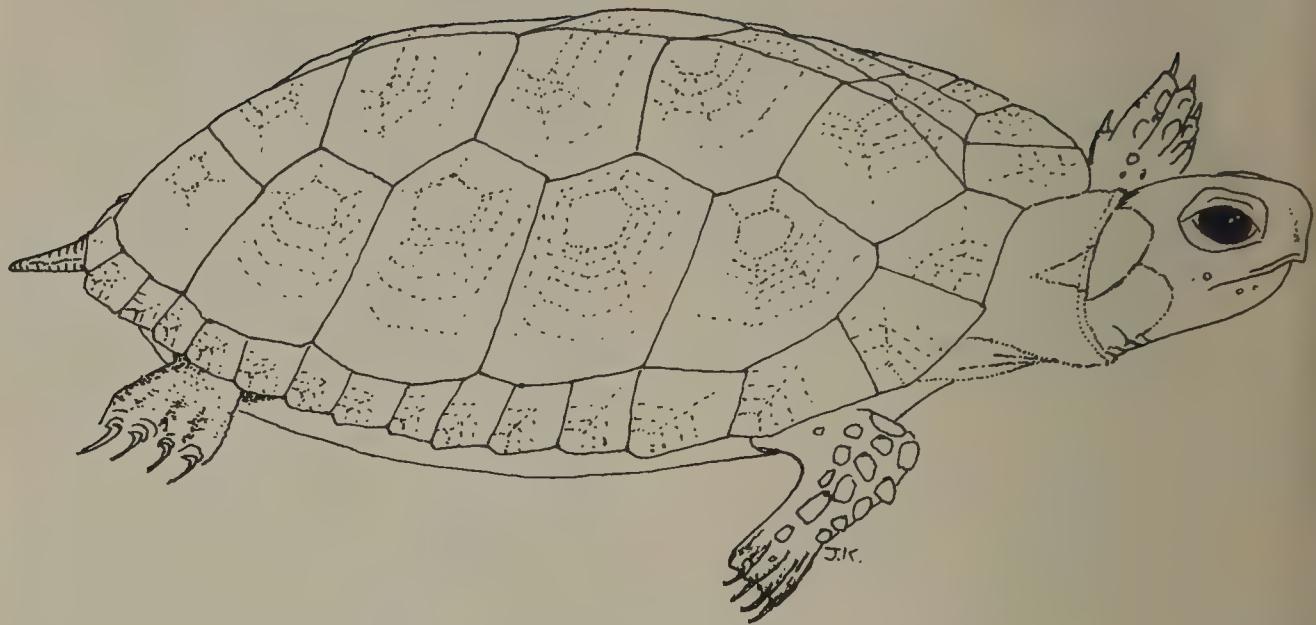


water pollution, and habitat degradation, poses a grave threat to the quality of life of human and wildlife populations. This threat requires extraordinary efforts by state and local governments, as well as private citizens, if we are to preserve our natural environment. The Division of Fisheries and Wildlife intends to continue to respond to this threat vigorously and comprehensively, in a manner that is preemptive as well as reactive – and thus attempts to prevent problems as well as solve them. To do so, however, will require substantial additional resources of all kinds. Thus, in addition to its ongoing programs as described above, the Division also intends to accomplish the following:

First, habitat loss remains the single most serious threat to the fish, wildlife, and wild plants of this state. Adequate protection – including management – of habitats is an essential component of the comprehensive

effort to protect and maintain the diversity and abundance of these biota. Immediate and aggressive action is needed if we are to protect enough habitat to enable the preservation of viable populations of black bear, fisher, deer, wild turkey, waterfowl, piping plover, bluebird, turtles and salamanders, rare plants and the many other species that together comprise the natural heritage of Massachusetts. To be successful, this effort will require both the acquisition of critical habitats to bring these areas into the permanently protected status provided by public ownership, and the protection – via regulation – of essential areas such as wetlands and rare species habitats that remain in private ownership. Although the General Court has enacted two bond issues since 1983 that have provided great quantities of money for open space acquisition, including  $\frac{1}{2}$  billion dollars in the 1987 bond issue, the threat is so great during this era of rapidly escalating land prices that more funding is urgently needed, particularly for wetlands, unique natural communities and rare species' habitats. Thus, an expanded land acquisition program is essential. In addition, the statutory authority proposed in two bills currently before the General Court that would enable the Division to take action to protect rare species habitats and establish nature preserves would enhance this effort.

The Division also intends to expand its ability to more thoroughly analyze the impacts of proposed projects in wetlands and other natural habitats currently reviewed by Division personnel under MEPA, the Wetlands Protection Act, Section 404 permits from the Army Corps of Engineers, and similar state and federal regulatory programs. Such an enhanced analytic capability would enable the Division to study in detail the ever-increasing number of proposed actions in fish and wildlife habitats, to take a longer-term and more comprehensive view by studying the cumulative impacts of these projects, and to look at development trends to identify problems that may occur in the future in order to design appropriate mitigation strategies before damage occurs. The Division would also like to aggressively implement the mapping and certification of vernal pools so that these areas can be appropriately protected under the Wetlands



Protection Act. Finally, the Division would like to enhance the protection of privately owned fish and wildlife habitat by developing programs that a) provide technical assistance to Conservation Commissions and other governmental agencies to assist them in analyzing the impact of projects on lands under their regulatory jurisdiction and/or ownership, and b) provide technical assistance to private landowners who wish to protect and manage habitat on their own property. The Division believes that such a comprehensive public/private habitat protection effort applied throughout the Commonwealth can greatly enhance the proper stewardship of fish, wildlife and wild plants.

Continuation and enhancement of the Division's active participation in such programs with private conservation organizations, educational institutions and other governmental agencies is essential. The Division's responsibility does not end at the Commonwealth's borders.

The Division has been and remains an active participant and leader in the protection and management of waterfowl within the Atlantic flyway. Massachusetts has the most extensive ongoing waterfowl research program of the New England states. Division staff are also regular participants in cooperative research being undertaken on the major North American waterfowl nesting grounds in Canada. Recognizing the importance of the Canadian nesting grounds to North American waterfowl populations, the Division provides funds for the preservation of these wetlands through the annual sale of a state waterfowl stamp. Additional national/international efforts are planned on the part of the Division to see that the goals of the recently developed North American Waterfowl management plan are accomplished.

Second, the data base regarding the fish and wildlife resources of this state must be expanded. In particular, increased scientific inquiry needs to be focused on the biology and management of a) endangered, threatened and special concern species, b) species, such as the black duck, which for unknown reasons are undergoing significant population declines, c) furbearers, whose populations are increasing and ranges are expand-

ing, and d) taxonomic groups such as songbirds, reptiles, amphibians and invertebrates about which relatively little life history research has ever been conducted. In addition, further research is needed on wild plants, natural communities and unique ecosystems. As part of this research effort, after the populations of species and the geographic extent of the communities are inventoried, they must be monitored on a continuing basis so that precipitous changes can be identified quickly.

The Division will use this expanded data base to develop a comprehensive management program which has as its goal the maintenance of self-sustaining populations of all species under its jurisdiction. This would include, where appropriate, long-range management plans that would evaluate the status of species in the Commonwealth, identify critical habitat requirements, determine existing and potential threats, and devise strategies for meeting those needs and threats. The goal is to protect and maintain the abundance and diversity of the Commonwealth's biota and to prevent any future population declines, par-

ticularly those which may lead to endangerment of species. The Division, through its regulatory Board, will continue to regulate the taking of game species in order to maintain healthy populations and provide legitimate use for the public benefit. It will also seek statutory authority to conserve (i.e. regulate the taking of) invertebrates and wild plants. Such a comprehensive plan will empower the Division to manage and preserve the Commonwealth's natural diversity.

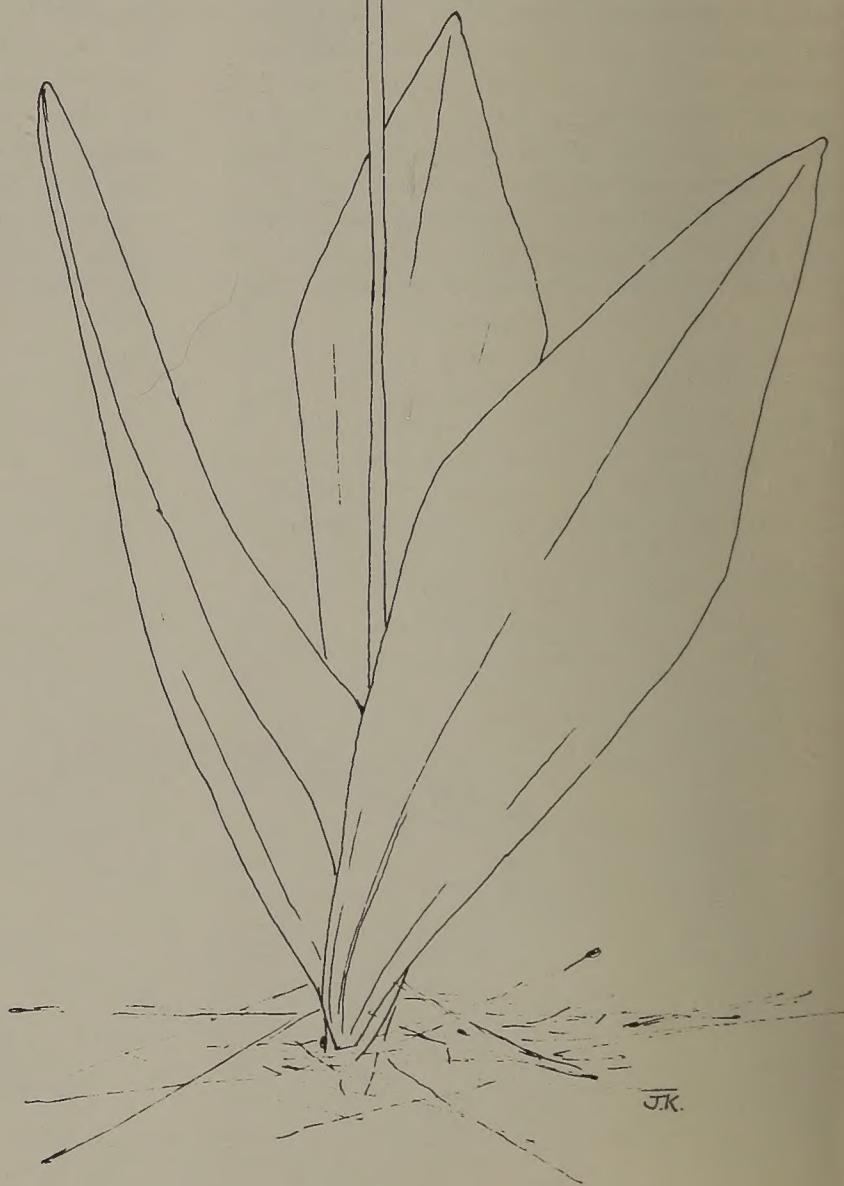
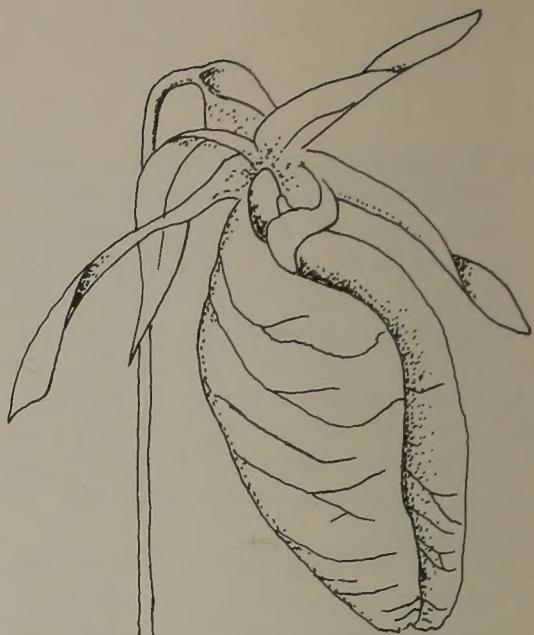
Third, the Division will aggressively expand its efforts to save and restore those species already listed as endangered, threatened or of special concern in Massachusetts, with the ultimate goal of returning those species to stable, healthy population levels so that they can be permanently removed from that list. The Division will utilize its enhanced research capability to develop recovery plans for those species and then develop long-range management plans to maintain those species at adequate population levels.

Fourth, with the understanding that a well-informed public is a primary force in environmental protection, the Division in-



tends to expand its capability to inform the public of its programs and the status and needs of the fish, wildlife, wild plants, and their habitats. By working with educators, it will also increase its efforts to develop environmentally literate and responsible citizens.

Clearly, the management of wildlife – including fishes and wild plants – in an urbanizing society involves many new challenges. Substantial additional personnel and financial resources, as well as expanded authority, will be required to implement these programs. However, the Division of Fisheries and Wildlife believes that these efforts are necessary if the goal of protecting the environment of the Commonwealth, as set forth in Article 97 of the State's Constitution, is to be accomplished.



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